Mixtures, Density, and States of Matter – Study Guide

**Vocab to Know:**

* Boiling – a change from liquid to gas
* Compound – two or more elements bonded together
* Condensing – a change from gas to liquid
* Density – how closely together the molecules are packed together
* Dissolve – when a solid disperses into a liquid, making a solution
* Freezing – a change from liquid to solid
* Gas – a state of matter with no definite shape and no definite volume, it spreads out to fill its container and has a high kinetic energy
* Heterogeneous – a mixture that is not the same throughout; it is not evenly mixed
* Homogeneous – a mixture that is the same throughout; it is evenly mixed
* Liquid – a state of matter with a definite volume but no definite shape
* Mass – the amount of matter in a substance
* Melting – the change from solid to liquid
* Mixture – two or more substances that are not chemically bonded
* Solid – a state of matter with a definite shape and a definite volume
* Solute – the solid that dissolves in the solution (salt is the solute)
* Solution – when one substance dissolves into another
* Solvent – the liquid that the solute dissolves into to make a solution
* Suspension – a mixture where the solid does not dissolve into the liquid
* Volume – the amount of space a substance takes up

**Skills to Know**

* Know how to read and interpret a phase change diagram
  + (See Phase Change Diagram Worksheet Assignments for Examples)
* Know how to identify examples of solutions, suspensions, compounds
  + (See definitions in the Elements, Compounds, and Mixtures Reading)
* Know how to identify more and less dense objects
  + (See examples in the Density Reading and our Relative Density Exploration – Hint: Float vs Sink)